



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,354	09/29/2003	Jung-Nam Im	20474 CIP	5792
20551 7590 03/02/2007 THORPE NORTH & WESTERN, LLP. 8180 SOUTH 700 EAST, SUITE 200 SANDY, UT 84070			EXAMINER GETTMAN, CHRISTINA DANIELLE	
			ART UNIT 3734	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/02/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/675,354

Applicant(s)

IM ET AL.

Examiner

Christina D. Gettman

Art Unit

3734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5, 8, 10-17, 20, 22-29, 32 and 34-40 is/are pending in the application.
- 4a) Of the above claim(s) 37 and 38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8, 10-17, 20, 22-29, 32, 34-36, and 39-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09/23/2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

Claims 37 and 38 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in a telephone call made to Todd Adler on October 5, 2006.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 8, 10-17, 20, 22-29, 32, 34-36, and 39-40 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Liu et al. (U.S. Patent No. 5,626,611). Liu et al. disclose a monofilament suture prepared by co-extrusion (col. 4, line 63), a first polymer with a higher Young's modulus than a second polymer (col. 2, line 65 and U.S. Patent No. 4,052,988), the first polymer having 50 to 90% amount by volume and the second polymer having 10 to 50% amount by volume (col. 2, line 55), the first and second polymers being made of a homopolymer

Art Unit: 3734

or a copolymer that are listed in the claims of the application (col. 3, line 15-37), the first polymer having a higher melting point than the second polymer (col. 2, line 65 and U.S. Patent No. 4,444,927), the two polymers forming a sea/island suture and a sheath/core suture (Fig. 1A), and the steps of making the monofilament suture (col. 4, line 63 to col. 6, line 13). The reference discloses polyglycolide as an example for the material used for the core portion and polydioxanone for the material used for the shell portion. Polyglycolide inherently has a higher Young's modulus and melting temperature than polydioxanone. Liu et al. also disclose that the maximum diameter of the core is 0.8 mm and the maximum thickness of the shell is 0.5 mm. After calculating the amount percentage of each polymer, the percentages fit the range as stated in the application. In the alternative, Liu et al. disclose altering the concentration of two polymers (col. 4, line 15-20), it would, therefore, be obvious to pick the correct concentrations of the polymers in order to obtain the desired Young's modulus difference between the two polymers. Even further, Applicant admits that the use of two polymers, for example glycolide and lactide which are both provided as suitable materials in Liu et al., would obtain the desired Young's modulus difference as well as the Young's modulus of the individual polymers based on inherent properties of the materials.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 13, and 25 have been considered but are moot in view of the new ground(s) of rejection. Applicant argues that Liu et al. require using glycolide and lactide copolymers with a Young's modulus of glycolide and lactide copolymer (90%:10%) of about 5.8 Gpa, which is greater than the recited

Art Unit: 3734

amount required by claims 1, 13, and 25. However, it is recited in claims 1, 3, and 25 that each respective polymer, not the combination of the two as recited in the arguments, have a Young's modulus of 3.0 Gpa or less and a difference between the two polymers of 0.3 Gpa or less. Therefore, the arguments are not persuasive. Since the previous Office Action did not address the Young's modulus of the individual polymers and/or the difference between the two individual polymers, the arguments are moot based on new grounds of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christina D. Gettman whose telephone number is 571-272-3128. The examiner can normally be reached on Monday-Friday 7:15 am to 3:45 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Hayes can be reached on 571-272-4959. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Christina Gettman  
Art Unit 3734  
571-272-3128



MICHAEL J. HAYES  
SUPERVISORY PATENT EXAMINER